



SCHWEGMAN ■ LUNDBERG ■ WOESSNER ■ KLUTH

# United States Patent Application

## SUBSTITUTE COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that

I verily believe I am the original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled: **SYSTEMS AND METHODS FOR ADAPTIVE BIT LOADING IN A MULTIPLE ANTENNA ORTHOGONAL FREQUENCY DIVISION MULTIPLEXED COMMUNICATION SYSTEM.**

The specification of which was filed on December 29, 2003 as application serial no. 10/750,587 and was amended on August 6, 2004.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with 37 C.F.R. § 1.56 (attached hereto). I also acknowledge my duty to disclose all information known to be material to patentability which became available between a filing date of a prior application and the national or PCT international filing date in the event this is a Continuation-In-Part application in accordance with 37 C.F.R. § 1.63(e).

I hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on the basis of which priority is claimed:

**No such claim for priority is being made at this time.**

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

**Application Number**  
60/493937

**Filing Date**  
August 8, 2003

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**I hereby appoint the attorney(s) and/or patent agent(s) associated with Customer Number 45457 to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.**

I hereby authorize them to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/organization/who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct Schwegman, Lundberg, Woessner & Kluth, P.A. to the contrary.

**Please direct all correspondence in this case to Customer Number 21186 at the address indicated below:**

**Schwegman, Lundberg, Woessner & Kluth, P.A.  
P.O. Box 2938, Minneapolis, MN 55402  
Telephone No. (612)373-6900**

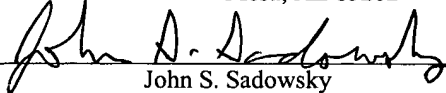
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Full Name of joint inventor number 1 : **John S. Sadowsky**

Citizenship: **United States of America**

Residence: **Mesa, AZ**

Post Office Address: **1428 West Lindner  
Mesa, AZ 85202**

Signature:   
John S. Sadowsky

Date: August 18, 2004

Full Name of joint inventor number 2 : **Minnie Ho**

Citizenship: **United States of America**

Residence: **Los Altos, CA**

Post Office Address: **405 Becker Lane  
Los Altos, CA 94022**

Signature: \_\_\_\_\_  
Minnie Ho

Date: \_\_\_\_\_

Full Name of joint inventor number 3 : **Sumeet Sandhu**

Citizenship: **United States of America**

Residence: **San Jose, CA**

Post Office Address: **25 Rio Robles East  
#408  
San Jose, CA 95134**

Signature: \_\_\_\_\_  
Sumeet Sandhu

Date: \_\_\_\_\_

☒ Additional inventors are being named on separately numbered sheets, attached hereto.

Full Name of joint inventor number 4 : **Alexander A. Maltsev**

Citizenship: **Russian Federation**

Residence: **Nizhny Novgorod Russian Federation**

Post Office Address: **Verhne-Pecherskaya Str., 1-7  
Nizhny Novgorod 603163  
Russian Federation**

Signature: \_\_\_\_\_  
Alexander A. Maltsev

Date: \_\_\_\_\_

---

Full Name of joint inventor number 5 : **Eric A. Jacobsen**

Citizenship: **United States of America**

Residence: **Scottsdale, AZ**

Post Office Address: **10539 E. Salt Bush Drive  
Scottsdale, AZ 85259**

Signature: \_\_\_\_\_  
Eric A. Jacobsen

Date: \_\_\_\_\_

---

Full Name of joint inventor number 6 : **Ali S Sadri**

Citizenship: **United States of America**

Residence: **San Diego, CA**

Post Office Address: **11835 Carmel Mountain Road  
Suite 1304-306  
San Diego, CA 92128**

Signature: \_\_\_\_\_  
Ali S Sadri

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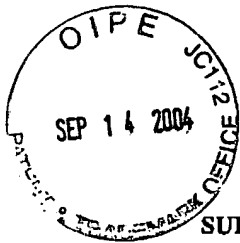
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- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.



SCHWEGMAN ■ LUNDBERG ■ WOESSNER ■ KLUTH

Attorney Docket No.884.A56US1

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Attorney Docket No.: 884.A56US1  
Serial No. 10/750,587  
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Page 2 of 4

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Post Office Address: 1428 West Lindner  
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Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
John S. Sadowsky

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Los Altos, CA 94022

Signature: Minnie Ho Date: 9/1/04  
Minnie Ho

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Post Office Address: **1428 West Lindrier**  
**Mesa, AZ 85202**

Residence: **Mesa, AZ**

Signature: \_\_\_\_\_  
John S. Sadowsky

Date: \_\_\_\_\_

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Citizenship: **United States of America**  
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**Los Altos, CA 94022**

Residence: **Los Altos, CA**

Signature: \_\_\_\_\_  
Minnie Ho

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Full Name of joint inventor number 3: **Sumeet Sandhu**  
Citizenship: **United States of America**  
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**San Jose, CA 95134**

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Full Name of joint inventor number 5 : Eric A. Jacobsen  
Citizenship: **United States of America**  
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Los Altos, CA 94022

Signature: Minnie Ho Date: \_\_\_\_\_

Full Name of joint inventor number 3: Sumeet Sandhu  
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Post Office Address: 25 Rio Robles E. St  
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San Jose, CA 95134

Signature: Sumeet Sandhu Date: \_\_\_\_\_

☒ Additional inventors are being named on separate / numbered sheets, attached hereto.

Attorney Docket No.: 884, A56US1  
Serial No. 10/750,587  
Filing Date: December 29, 2003

Page 3 of 4

Full Name of joint inventor number 4 : Alexander A. Maltsev  
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Residence: Nizhny Novgorod Russian Federation

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Alexander A. MaltsevDate: 13 August, 2004

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Signature: \_\_\_\_\_

Eric A. Jacobsen

Date: \_\_\_\_\_

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Citizenship: United States of America  
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Suite 1304-305  
San Diego, CA 92128

Residence: San Diego, CA

Signature: \_\_\_\_\_

Ali S Sadri

Date: \_\_\_\_\_

Attorney Docket No.: 884.A56US1  
 Serial No. 10/750,587  
 Filing Date: December 29, 2003

Page 4 of 4

# § 1.56 Duty to disclose information material to patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably differs, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
  - (i) Opposing an argument of unpatentability relied on by the Office, or
  - (ii) Asserting an argument of patentability.

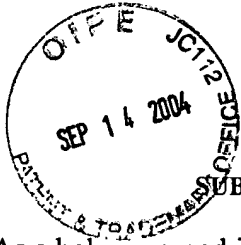
A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assistance or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.





SCHWEGMAN ■ LUNDBERG ■ WOESSNER ■ KLUTH

**United States Patent Application**

SUBSTITUTE COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that

I verily believe I am the original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled: **SYSTEMS AND METHODS FOR ADAPTIVE BIT LOADING IN A MULTIPLE ANTENNA ORTHOGONAL FREQUENCY DIVISION MULTIPLEXED COMMUNICATION SYSTEM.**

The specification of which was filed on December 29, 2003 as application serial no. 10/750,587 and was amended on August 6, 2004.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with 37 C.F.R. § 1.56 (attached hereto). I also acknowledge my duty to disclose all information known to be material to patentability which became available between a filing date of a prior application and the national or PCT international filing date in the event this is a Continuation-In-Part application in accordance with 37 C.F.R. § 1.63(e).

I hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on the basis of which priority is claimed:

**No such claim for priority is being made at this time.**

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

**Application Number**  
60/493937

**Filing Date**  
August 8, 2003

I hereby claim the benefit under 35 U.S.C. § 120 or 365(c) of any United States and PCT international application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose material information as defined in 37 C.F.R. § 1.56(a) which became available between the filing date of the prior application and the national or PCT international filing date of this application:

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**I hereby appoint the attorney(s) and/or patent agent(s) associated with Customer Number 45457 to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.**

I hereby authorize them to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/organization/who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct Schwegman, Lundberg, Woessner & Kluth, P.A. to the contrary.

**Please direct all correspondence in this case to Customer Number 21186 at the address indicated below:**

**Schwegman, Lundberg, Woessner & Kluth, P.A.  
P.O. Box 2938, Minneapolis, MN 55402  
Telephone No. (612)373-6900**

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of joint inventor number 1 : **John S. Sadowsky**  
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Post Office Address: 1428 West Lindner  
Mesa, AZ 85202

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
John S. Sadowsky

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Post Office Address: 405 Becker Lane  
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Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
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Russian Federation

Signature: \_\_\_\_\_  
Alexander A. Maltsev

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Citizenship: **United States of America**

Residence: **Scottsdale, AZ**

Post Office Address: 10539 E. Salt Bush Drive  
Scottsdale, AZ 85259

Signature:  \_\_\_\_\_  
Eric A. Jacobsen

Date: 8/11/04

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Full Name of joint inventor number 6 : Ali S Sadri

Citizenship: **United States of America**

Residence: **San Diego, CA**

Post Office Address: 11835 Carmel Mountain Road  
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Signature: \_\_\_\_\_  
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## United States Patent Application

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Ali S Sadri

Date: Aug. 10-04

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